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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,865	08/26/2003	Jessy V. Rouyer	WJT002-0035	3760

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EXAMINER

WILSON, ROBERT W

ART UNIT	PAPER NUMBER
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2616

MAIL DATE	DELIVERY MODE
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06/13/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/648,865

Applicant(s)

ROUYER ET AL.

Examiner

Robert W. Wilson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/6/04, 8/26/03, 3/12/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to claim 1, 15, & 32, what is meant by “immediately transmitting the high-priority control messages that contain information that contributes to the re/convergence of an unstable topology to a stable topology in a the network.” The examiner does not understand exactly what this means.

Referring to claims 8 and 21, what is meant by “wherein said step of immediately transmitting is performed when an allsynced condition is defined as TRUE if and only if synced is true for all ports for given tree other than the given port”. This limitation makes no sense.

Referring to claims 9-14, 22-27, 35-40, all of these claims refers to set and table and are an omnibus claim. All of these claims have similar limitation to claim 9 lines 19-22 on Pg 35 which the examiner totally cannot understand what the limitation means. Consequently all of these claims are indefinite.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 15-16, 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malhotra (U.S. Patent Publication: US2003/0161275) in view of the Part 3: Media Access

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Controll (MAC) Bridges-Amendment 2: Rapid Reconfiguration which is an IDS document of record henceforth called Standard.

Referring to claim 1, Malhotra teaches: a method for selectively eliminating latencies in the exchange of control message during the re/convergence of the network (Bridges per Pg 2 Para [0029] to Pg3 Para [0036] exchange control messages) said method comprising the steps of:

Classifying the to-be transmitted control message into either low-priority control message or high-priority control messages (BPDU or control messages are given a priority which means that have been classified per Pg 3 Para [0036])

Limiting the transmission rate of the low-priority control messages (BPDU are sent at a high rate per Pg 3 Para [0036])

Immediately transmitting the high-priority control messages that contain information that contributes to the re/convergence of an unstable topology to a stable topology (BPDUs are inherently immediately transmitted upon a topology change which causes a network to converge to a more stable state per Pg 3 Para [0036])

Malhotra does not expressly call for: limiting the transmission rate

The Standard teaches: limiting transmission rate per Table 8-3 pg 10 and Para 17.1 per Pg 35 and Pg 48 and Pgs 75-76

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the limiting the transmission rate of the Standard to the system which classifies and prioritizes BPDUs of Malhotra in order to build a system which is standards compliant and will interoperate other standards based systems.

Referring to claim 2, the combination of Malhotra and the Standard teach: the method of claim 1 and Maholtra teaches that the control messages are bridge protocol data units per Pg 3 Para [0036}

Malhotra does not expressly call for: RSTP based network

The standard teaches: RSTP based network per Para 17 Pg 24

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the RTSP based network of the standard to the BPDU based system of Malhotra in order to speed up the convergence of the network in a standards based manner in order to ensure that the system will interoperate with legacy standards based systems.

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Referring to claim 3, the combination of Malhotra and the Standard teach: the method of claim 1 and wherein the transmission rate of the low-priority control messages is limited

Malhotra does not expressly call for: IEEE 802.1 RSTP

The standard teaches: IEEE 802.1 per pgs 1-3

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the IEEE 802.1 RSTP of the standard to the BPDU based system of the combination Malhotra and the Standard in order to build a standards based system will interoperate with legacy standards based systems.

Referring to claim 15, Malhotra teaches: a network (Fig 2) comprising:

A plurality of bridges coupled to the links (switches or bridges coupled via links Fig 2) each bridge executing a protocol that selectively eliminates latency in exchange of control messages between bridges during the re/convergence of the network (Each of the switches exchange BPDU which are control messages which because of the priority system will speed up the convergence or reconvergence of the network per Pg 2 Para [0029] to Pg 3 Para [00036]) by

Classifying the to-be transmitted control message into either low-priority control message or high-priority control messages (BPDU or control messages are given a priority which means that have been classified per Pg 3 Para [0036])

Limiting the transmission rate of the low-priority control messages (BPDU are sent at a high rate per Pg 3 Para [0036])

Immediately transmitting the high-priority control messages that contain information that contributes to the re/convergence of an unstable topology to a stable topology (BPDUs are inherently immediately transmitted upon a topology change which causes a network to converge to a more stable state per Pg 3 Para [0036])

Malhotra does not expressly call for: a plurality of state machines that selectively control latencies in the exchange of control messages during the re/convergence of the network and limiting the transmission rate

The Standard teaches: a plurality of state machines that selectively control latency associated with exchange of control messages during the re-convergence of the network per Page 17.13 Pgs 42 and 43 and limiting transmission rate per Table 8-3 pg 10 and Para 17.1 per Pg 35 and Pg 48 and Pgs 75-76

It would have been obvious to one of ordinary skill in the art at the time of the invention to add a plurality of state machines that selectively control latencies in the exchange of control messages during the re/convergence of the network and limiting the transmission rate the Standard to the

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system which classifies and prioritizes BPDUs of Malhotra in order to build a system which is standards compliant and will interoperate other standards based systems.

Referring to claim 16, the combination of Malhotra and the Standard teach: the network of claim 15 and Malhotra teaches that the control messages are bridge protocol data units per Pg 3 Para [0036]

Malhotra does not expressly call for: RSTP based network

The standard teaches: RSTP based network per Para 17 Pg 24

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the RTSP based network of the standard to the BPDU based network of Malhotra in order to speed up the convergence of the network in a standards based manner in order to ensure that the system will interoperate with legacy standards based systems.

Referring to claim 17, the combination of Malhotra and the Standard teach: the network claim 15 and wherein the transmission rate of the low-priority control messages is limited

Malhotra does not expressly call for: IEEE 802.1 RSTP

The standard teaches: IEEE 802.1 per pgs 1-3

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the IEEE 802.1 RSTP of the standard to the BPDU based network of the combination Malhotra and the Standard in order to build a standards based system will interoperate with legacy standards based systems.

Referring to claim 28, the combination of Malhotra and the Standard teach: the network of claim 15 and wherein the transmission rate of the low-priority control messages is limited

Malhotra does not expressly call for: RSTP network

The standard teaches: RSTP per pgs 1-3

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the RSTP of the standard to the BPDU based system of the combination Malhotra and the Standard in order to build a standards based system will interoperate with legacy standards based systems.

Referring to claim 29, the combination of Malhotra and the Standard teach: the network of claim 15

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The combination of Malhotra and Standard do not expressly call for: wherein the network is a local area network.

The examiner takes official notice that a local area network is well known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement a local area network out of the bridges of the combination of Malhotra and the Standard in order to provide switching on a local campus.

Referring to claim 30, the combination of Malhotra and the Standard teach: the network of claim 15 and the network is bridged.

The combination of Malhotra and Standard do not expressly call for: wherein the network is a local area network.

The examiner takes official notice that a local area network is well known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement a local area network out of the bridges of the combination of Malhotra and the Standard in order to provide switching on a local campus.

Referring to claim 31, the combination of Malhotra and the Standard teach: the network of claim 15

The combination of Malhotra and Standard do not expressly call for: wherein the network is a metropolitan area network.

The examiner takes official notice that a metropolitan area network is well known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement a metropolitan out of the bridges of the combination of Malhotra and the Standard in order to provide metropolitan area.

5. Claims 4-7, 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malhotra (U.S. Patent Publication: US2003/0161275) in view of the Part 3: Media Access Controll (MAC) Bridges-Amendment 2: Rapid Reconfiguration which is an IDS document of record henceforth called Standard further in view of Seaman (U.S. Patent No.: 6,611,502)

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Referring to claim 4 the combination of Malhotra and the Standard teach: the method of claim 1 and high-priority messages (BPDU)

The combination of Malhotra and the Standard do not expressly call for: BPDU created in a bridge in a network becomes a new root.

Seaman teaches: BPDU created in a bridge in a network becomes a new root (all entities notified via BPDU of a bridge becoming a new root per col. 11 lines 14 to 18)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the BPDU created in a bridge in a network becomes a new root of Seaman to the control message prioritization system of Malhotra and the Standard in order to build a system which notifies all entities of a new root.

Referring to claim 5 the combination of Malhotra and the Standard teach: the method of claim 1 and high-priority messages (BPDU)

The combination of Malhotra and the Standard do not expressly call for: control messages are created when a bridge in the network has to reroot a port toward a new bridge

Seaman teaches: control messages are created when a bridge in the network has to reroot a port toward a new bridge (BPDUs sent for port determination upon new change to a new root col. 11 lines 5 to 11)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add control messages are created when a bridge in the network has to reroot a port toward a new bridge of Seaman to the control message prioritization system of Malhotra and the Standard in order to build a system which notifies all entities of a new root.

Referring to claim 6 the combination of Malhotra and the Standard teach: the method of claim 1 and high-priority messages (BPDU)

The combination of Malhotra and the Standard do not expressly call for: control messages are created when a bridge in the network has to advertise information about a new root bridge to another bridge

Seaman teaches: control messages are created when a bridge in the network has to advertise information about a new root bridge to another bridge
per col. 11 lines 14 to 18

It would have been obvious to one of ordinary skill in the art at the time of the invention to add control messages are created when a bridge in the network has to advertise information about a new root bridge to another bridge of Seaman to the control message prioritization system of Malhotra and the Standard in order to build a system which notifies all entities of a new root.

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Referring to claim 7 the combination of Malhotra and the Standard teach: the method of claim 1 and high-priority messages (BPDU)

The combination of Malhotra and the Standard do not expressly call for: control message created when a bridge detects a topology change on a port.

Seaman teaches: control message created when a bridge detects a topology change on a port. (BPDUs sent for port determination upon new change to a new root col. 11 lines 5 to 11)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add control message created when a bridge detects a topology change on a port. of Seaman to the control message prioritization system of Malhotra and the Standard in order to build a system which notifies all entities of a new root.

Referring to claim 17 the combination of Malhotra and the Standard teach: the network of claim 15 and high-priority messages (BPDU)

The combination of Malhotra and the Standard do not expressly call for: BPDU created in a bridge in a network becomes a new root.

Seaman teaches: BPDU created in a bridge in a network becomes a new root (all entities notified via BPDU of a bridge becoming a new root per col. 11 lines 14 to 18)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the BPDU created in a bridge in a network becomes a new root of Seaman to the control message prioritization system of Malhotra and the Standard in order to build a network which notifies all entities of a new root.

Referring to claim 18 the combination of Malhotra and the Standard teach: the network of claim 15 and high-priority messages (BPDU)

The combination of Malhotra and the Standard do not expressly call for: control messages are created when a bridge in the network has to reroort a port toward a new bridge

Seaman teaches: control messages are created when a bridge in the network has to reroort a port toward a new bridge (BPDUs sent for port determination upon new change to a new root col. 11 lines 5 to 11)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add control messages are created when a bridge in the network has to reroort a port toward a new bridge of Seaman to the control message prioritization system of Malhotra and the Standard in order to build a system which notifies all entities of a new root.

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Referring to claim 19 the combination of Malhotra and the Standard teach: the network of claim 15 and high-priority messages (BPDU)

The combination of Malhotra and the Standard do not expressly call for: control messages are created when a bridge in the network has to advertise information about a new root bridge to another bridge

Seaman teaches: control messages are created when a bridge in the network has to advertise information about a new root bridge to another bridge
per col. 11 lines 14 to 18

It would have been obvious to one of ordinary skill in the art at the time of the invention to add control messages are created when a bridge in the network has to advertise information about a new root bridge to another bridge of Seaman to the control message prioritization system of Malhotra and the Standard in order to build a system which notifies all entities of a new root.

Referring to claim 20 the combination of Malhotra and the Standard teach: the network of claim 15 and high-priority messages (BPDU)

The combination of Malhotra and the Standard do not expressly call for: control message created when a bridge detects a topology change on a port.

Seaman teaches: control message created when a bridge detects a topology change on a port.
(BPDUs sent for port determination upon new change to a new root col. 11 lines 5 to 11)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add control message created when a bridge detects a topology change on a port.
of Seaman to the control message prioritization system of Malhotra and the Standard in order to build a system which notifies all entities of a new root.

Referring to claim 32, Malhotra teaches: a device (bridge per Fig 2) comprising:

Classifying the to-be transmitted control message into either low-priority control message or high-priority control messages (BPDU or control messages are given a priority which means that have been classified per Pg 3 Para [0036])

Limiting the transmission rate of the low-priority control messages (BPDU are sent at a high rate per Pg 3 Para [0036])

Immediately transmitting the high-priority control messages that contain information that contributes to the re/convergence of an unstable topology to a stable topology (BPDUs are inherently immediately transmitted upon a topology change which causes a network to converge to a more stable state per Pg 3 Para [0036])

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Malhotra does not expressly call for: a plurality of state machines that selectively control latencies in the exchange of control messages during the re/convergence of the network and limiting the transmission rate

The Standard teaches: a plurality of state machines that selectively control latency associated with exchange of control messages during the re-convergence of the network per Page 17.13 Pgs 42 and 43 and limiting transmission rate per Table 8-3 pg 10 and Para 17.1 per Pg 35 and Pg 48 and Pgs 75-76

It would have been obvious to one of ordinary skill in the art at the time of the invention to add a plurality of state machines that selectively control latencies in the exchange of control messages during the re/convergence of the network and limiting the transmission rate the Standard to the system which classifies and prioritizes BPDUs of Malhotra in order to build a system which is standards compliant and will interoperate other standards based systems.

In addition Malhotra teaches:

Regarding claim 33 wherein said device is at layer 2 of the open System Interconnection reference model (device is a bridge per Fig 2 which is inherently at layer 2 of the OSI reference model)

Regarding claim 34 wherein said device is bridge, switch or router (bridge per Fig 2)

Conclusion

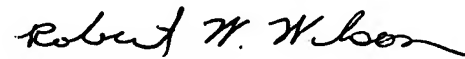
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W. Wilson whose telephone number is 571/272-3075.

The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. VU can be reached on 571/272-73155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Robert W Wilson
Examiner
Art Unit 2616

RWW
6/8/07